tex, latter straight across on top. Thorax dull brown, no distinct pale marks; abdomen brown; legs pale, tips of tibiæ and the tarsi darker. Wings brownish fumose; the pterostigma rather darker, a black dot at its base, and one at end of the anal vein; venation blackish, the vein closing the cell, the one connecting to hind margin, the lower one fourth of the outer side of cell and the fork of the radial sector hyaline white. Pterostigma elongate, rounded behind; discal cell long, with a long pedicel from radial sector, almost as long as lower side of cell, which is barely one half as long as the upper side; outer side one third longer than upper side. Length 6 mm.

Mt. Katahdin, Maine.

Elipsocus occidentalis, new species.

Head blackish; antennæ pale brownish; thorax black; abdomen (dry) black; legs yellowish brown. Wings hyaline, a dark cloud in middle, a spot on pterostigma, and the upper edge of the first posterior cell margined with brown. Sometimes some or all of these markings lacking (perhaps freshly transformed specimens). Antennæ rather heavy, third joint about as long as width of the head, eyes rather prominent, as high as vertex, which is straight across. Venation as usual, pterostigma long and slender; first posterior cell high, but not very near to median vein; radial sector and median vein united only a short distance before the fork, which is sudden, and very wide at base. Length 2.5 mm.

Several from Victoria, Vancouver Island (Bergroth.)

Class I, HEXAPODA.

Order XI, ORTHOPTERA.

ON SOME FORFICULIDÆ OF THE UNITED STATES AND WEST INDIES.

BY A. N. CAUDELL,

WASHINGTON, D. C.

Pyragra buscki, new species.

One male, Baracoa, Cuba, October 14, 1901 (Busck).

Description. — Male. Entire insect considerably flattened, microscopically pubescent and uniformly reddish brown except the base of the wings where the color is much lighter. Antennæ of at least 29 segments, the first and third elongate and equal, the second short; beyond the third segment the joints are short, growing longer and smaller towards the apex of the antenna. Pronotum nearly square, narrowing very abruptly anteriorly, posteriorly broadly rounded. Elytra almost twice as long as broad, not quite as long again as the pronotum, laterally extending well down the sides of the thorax as in the type species; posteriorly the elytra are truncate. Wings extending beyond the elytra a distance equal to scarcely one third the length of the

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elytra. Legs short and stout, the tarsi with the second joint small and simple, the third furnished with small but distinct pads between the claws. Abdomen without lateral tubercles; pygidium inconspicuous, triangular. Forceps slightly separated basally, short, stout, almost semicircularly rounded and serrate inwardly in the basal half. Length, pronotum, 2 mm.; elytra, 3.5 mm.; forceps, 2.5 mm.

Type. - Cat. no. 10288, U. S. National Museum.

This species is, in some respects, an aberrant member of the genus but goes here by most of the generic tables studied. The pubescence of the body is fine and short, scarcely visible with a common lens. On the tarsi however the hairs are more easily seen.

To this species I refer also an immature specimen bearing the same data as the type. The pads between the claws are not visible in this immature specimen.

Psalis americana Palisot.

Three females, San Francisco Mountains, Santo Domingo, September, 1905.

These specimens were taken by Mr. Busck from a hole over fifty feet above the ground in the side of a palm. The hole was apparently made by wood-rats and several of these rodents were taken in it. Besides rats the hole contained a large number of bats and in the dung and other trash at the bottom of the cavity were found a number of insects, among which were the present specimens.

Psalis pulchra Rehn.

One male, Trinidad, June, 1905 (Busck).

The recently described *Labia pictipennis* of Bruner* is a synonym of this species.

Psalis nigra, new species.

One female, Trinidad, July 4, 1905 (Busck).

Description. — Of small size. Antennæ seventeen jointed, the 13 and 14 or the 12, 13 and 14 joints yellowish, the rest dark brown. Pronotum quadrate, no broader than the head, posteriorly well rounded. Elytra black, about two times as long as broad. Wings projecting beyond the elytra a distance equal to about one half the length of the latter and brown with the central portion tinged with yellowish. Forceps stout, triangular, unarmed, apically bent moderately inwards. Color uniformly black above on head, thorax and abdomen. The legs are light brown, faintly marked longitudinally on the femora with darker brown. The under side of the body is lighter, the ventral surface of the thorax being light yellowish; mouth parts light brown. Length 12.5 mm.; forceps, 2.

Type. — Cat. no. 10290, U. S. National Museum.

* Journ. N. Y. Ent. Soc., XIV, 138, 1906.

Except for the presence of elytra and wings and the posteriorly more rounded pronotum, this insect bears a most striking resemblance to the specimens herein considered as *Anisolabis antoni*.

Anisolabis annulipes Serv.

The National Museum contains specimens of this species from California, Arizona, Texas, Florida, North Carolina and District of Columbia. Also one immature specimen from Baracoa, Cuba, September, 1901 (Busck).

Anisolabis maritima Bon.

One immature specimen from Nassau, in the Bahamas, is in the National collection, taken December 25, 1898, by Mr. Busck.

Anisolabis antoni Dohrn.

Three females, Trinidad, July, 1905 (Busck).

Anisolabis janeirensis Dohrn.

One male, Fajardo, Porto Rico, February, 1899, and one female, Utuado, Porto Rico, January, 1899, both taken by Mr. Busck.

Anisolabis minuta, new species.

One male, one female, Arroyo, Porto Rico, (types), and three females, Mayaguez, Porto Rico, January, 1899 (Busck).

Description. — Superficially resembling the immature forms of *A. annulipes* with which it is liable to be confused. Readily distinguished from other forms of the genus by the small size and by the presence of small, elongate and widely separated elytra which are almost or quite immovably attached to the thorax. Wings absent. Legs marked with brown on the femora and the antennæ are brown with the basal segments and the twelfth and thirteenth, or the thirteenth and fourteenth ones yellowish. The forceps are short, heavy and unarmed, those of the male strongly bent inwards apically, those of the female less so.

Length, male and female, 10–12 mm.; forceps, male and female, 1.75–2 mm.

Type. — Cat. no. 10289, U.S. National Museum.

The type specimens, the pair from Arroyo, were taken in February, 1899.

Labia burgessi Scudd.

The National Museum contains one female, North Carolina (Fisk); one male, Florida, no definite locality; two females, Palatka and Enterprise, Florida; one male, Willis, Texas.

Labia pulchella Serv.

One male, San Francisco Mountains, St. Domingo, September, 1905 (Busck).

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Labia trinitatis Bruner.

One male, Trinidad, June, 1905 (Busck); one adult female and one immature female, Dominica, August, 1905 (Busck).

The specimens from Dominica may not belong here. The nymph has the pronotum red, as mentioned as being sometimes the case with L. arcuata by Bormans. *

Labia gravidula Gerst.

One female, Botanical Gardens, Jamaica, November 13, 1902; one male, one female, one immature female, Aguadilla, Porto Rico, January, 1899 (Busck).

This species I place in the genus *Labia* rather than in the genus *Sphingolabis* as the characters seem to more logically place it in the former named genus.

Labia sp.

Three females, Baracoa, Cuba, August and September, 1901 (Busck).

These seem nearer *minor* than any other species of the genus that I have seen but these specimens are even smaller than usual in that small species and the color appears darker.

Labia brunnea Scudder.

I \mathcal{J} , Trinidad, on sweet potato; three females, St. Domingo, September, 1905 (Busck).

Chelisoches morio Fabr.

This species is eligible to entry in the United States fauna, having been taken in some numbers at Menlo Park, California, by Mr. F. Harmung. It is not at all rare in some of the Hawaiian Islands.

Sphingolabis luteipennis Serv.

Seven males, four females, Olivier, Louisiana. These were taken by Mr. Titus.

Sphingolabis linearis Esch.

Four males, ten females, Cayamas, Cuba, May and June (Schwarz).

Sphingolabis californica Dohrn.

Two males, Cayamas, Cuba, June (Schwarz).

I am quite convinced that this is but a variety of linearis.

Sphingolabis albipes Fabr.

Two males, two females, San Francisco Mountains, St. Domingo, September, 1905 (Busck).

^{*} Biol. Cent.-Amer., Orth., i, p. 6 (1893).

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Sphingolabis schwarzi Rehn.

One male, Cayamas, Cuba, May 25 (Schwarz).

This species was described from a single female specimen collected in the same locality by the same collector. It was placed in the genus *Forficula* by the describer but the male shows it to be a member of the genus *Sphingolabis*.

In general appearance of form and color the male is very like the female but the forceps are more elongate and are armed on the inner side with four teeth, the basal and apical ones the shortest, and basally there are a few sharp tubercles on the inner and dorsal surfaces. The pygidium terminates in a blunt cylindrical spine about three times as long as the middle width. The antennæ are twelve jointed. The measurements are as follows: Length, elytra, 4 mm.; wing, 2; forceps, 14.

Sphingolabis buscki Rehn.

Four full grown nymphs, all females, taken in the San Francisco Mountains, St. Domingo, by Mr. Busck in September, 1905. The antennæ of these specimens are unicolorous and the legs are a little lighter in color than in the type specimens but otherwise they agree very well with the types.

This species does not seem to fit very well into the genus *Sphin-golabis*, being in general appearance very unlike the other members of the genus. At a casual glance it resembles very much a large *Anisolabis*. It seems to be the insect referred to by Scudder * as *Psalis gagatina*.

Forficula auricularia Linn.

The specimens of this species recorded from Indiana, first by Rehn and later by Blatchley, are not from the United States at all but were taken by Professor Webster in Tasmania where he found them injuring fruit. This information is taken from Webster's original notes.

Forficula auricularia var. forcipata Steph.

Specimens of this insect were bred from imported nests of the brown-tail moth at Medford, Massachusetts.

^{*} Bull. U. S. Geol. & Geogr. Surv. Terr., ii, 250, 1876.